

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES D. HUSTON
and DARRYL J. CORNISH

Appeal No. 1999-0172
Application 08/334,733¹

ON BRIEF

Before ABRAMS, STAAB and McQUADE, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

¹Application for patent filed November 4, 1994. According to the appellants, the application is a continuation-in-part of Application 07/804,368, filed December 10, 1991, now U.S. Patent No. 5,364,093, granted November 15, 1994.

Charles D. Huston et al. originally took this appeal from the final rejection of claims 1 through 3 and 5 through 31, all of the claims pending in the application. The examiner has since withdrawn all rejections of, and allowed, claims 12 through 26. Accordingly, the appeal is dismissed with respect to claims 12 through 26, leaving for review the standing rejections of claims 1 through 3, 5 through 11 and 27 through 31. We affirm-in-part.

THE INVENTION

The invention relates to "a system and method for tracking inventory and freight using the global positioning satellite system" (specification, page 1). Claims 1 and 10 are representative and read as follows:²

1. A system for determining locations of freight containers in a freight yard comprising:

²Our review of the record indicates that dependent claim 28 is redundant with respect to parent claim 27. This informality is deserving of correction in the event of further prosecution before the examiner.

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a plurality of remote receivers attachable to said freight containers for receiving global positioning signals from the global positioning satellite system, each remote receiver including a transmitter;

a base station;

means for intermittently communicating global positioning data between said remote receiver transmitters and said base station;

reference receiver means positioned at a known position for receiving signals from the global positioning satellite system to determine a reference apparent position and for calculating an error correction based on the difference between the known position and the apparent position;

the base station including means for receiving global positioning data of a remote receiver from said communicating means, means for receiving said error correction from said reference receiver means, means for deriving a corrected location of said remote receiver using said error correction and said global positioning data, and means for displaying the location of said remote receiver in said freight yard.

10. A method for determining locations of freight containers in a freight yard comprising:

attaching a number of GPS receivers to a number of freight containers in said freight yard;

operating each receiver to receive GPS signals indicative of receiver position;

intermittently operating each receiver to transmit data indicative of receiver identification and receiver position, including the substep of determining time and initiating said intermittent transmission based on said time;

receiving said receiver identification and receiver position at a base station;

correcting said receiver positions at the base station to determine corrected positions of said receivers; and

displaying the identification and corrected position of said receivers in said freight yard.

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THE PRIOR ART

The references relied upon by the examiner as evidence of anticipation and obviousness are:

Rudnicki	4,896,580	Jan. 30, 1990
Burns et al. (Burns)	5,129,605	July 14, 1992
	(filed Sep. 17, 1990)	
Mansell et al. (Mansell)	5,223,844	June 29,
1993		(filed Apr. 17,
1992)		
Welles, II et al. (Welles)	5,491,486	Feb. 13, 1996
	(filed Apr. 25, 1994)	
Bickley et al. (Bickley)	5,519,403	May 21,
1996		
	(filed Nov. 29, 1993)	
Alesio	5,550,551	Aug. 27, 1996
	(filed Jul. 25, 1994)	

THE REJECTIONS

Claims 1 through 3, 5 through 11 and 27 through 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mansell.

Claims 1 through 3 and 5 through 7 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bickley.

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Claims 1 through 3 and 5 through 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rudnicki in view of Mansell or Bickley.

Claims 1 through 3 and 5 through 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burns in view of Mansell or Bickley.

Claims 1 through 3 and 5 through 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Welles in view of Mansell or Bickley.

Claims 1 through 3, 5 through 7, 10 and 27 through 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Alesio in view of Mansell or Bickley.

Attention is directed to the appellants' main and reply briefs (Paper Nos. 16 and 21) and to the examiner's substitute answer (Paper No. 20) for the respective positions of the

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appellants and the examiner with regard to the merits of these rejections.³

DISCUSSION

I. The appellants' assertion of an earlier filing date benefit under 35 U.S.C. § 120.

The threshold issue in this appeal is whether the subject matter recited in the claims at bar is entitled under 35 U.S.C. § 120 to the benefit of the December 10, 1991 filing date of parent application 07/804,368 as urged by the appellants (see, for example, pages 7 through 9 in the main brief). If so, Mansell, Welles, Bickley and Alesio would not be prior art with respect to these claims, and the examiner's reliance thereon to support the appealed rejections would be

³ Although the final rejection (Paper No. 14) contained a number of rejections in addition to those listed above, the examiner has since withdrawn all of the additional rejections (see page 3 in the substitute answer). It is also noted that the version of claim 11 appearing in the appendix to the appellants' main brief bears no resemblance to the claim 11 which is actually of record.

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improper.

For the filing date benefit to attach, the claimed invention must be disclosed in the earlier application "in the manner provided by the first paragraph of section 112 of this title"

(35 U.S.C. § 120). The claimed invention here pertains to a system and method for determining locations of freight containers in a freight yard. There is no disclosure of such in parent Application 07/804,368, which instead is directed to a system and method for measuring golf distances. Thus, the subject matter recited in the appealed claims is not entitled to the benefit of the earlier December 10, 1991 filing date, and Mansell, Welles, Bickley and Alesio do constitute prior art with respect to these claims.

II. The 35 U.S.C. § 102(b) rejection based on Mansell.

Mansell discloses a vehicle tracking and security system "especially suitable for use in fleet vehicle management, vehicle theft deterrent, stolen vehicle tracking, railroad car

tracking, cargo location, and so forth" (column 6, lines 48 through 50). In this vein, Mansell notes, for example, that "freight hauling firms have always had a need for tracking the vehicles in their fleets" (column 2, lines 2 and 3). In general, the system consists of a set of mobile units 100 provided on respective vehicles 102 (e.g., delivery vehicles), a control center 150 and a communications link 110 between the mobile units and the control center. Each mobile unit includes a Global Positioning System (GPS) receiver 314 and a transceiver/antenna assembly 316, 316A, and the control center includes a communications controller 170, a reference GPS receiver for providing real-time error correction of the vehicle location measurement using differential GPS techniques (see column 7, line 42, through column 8, line 6) and displays 182 for graphically showing the locations of the vehicles on maps. The system functions as described throughout the Mansell disclosure to accurately track the real-time locations of the vehicles.

Anticipation is established when a single prior art reference discloses, expressly or under principles of

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inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). It is not necessary that the reference teach what the subject application teaches, but only that the claim read on something disclosed in the reference, i.e., that all of the limitations in the claim be found in or fully met by the reference. Kalman v. Kimberly Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

The appellants contend that Mansell is not anticipatory because it does not meet the freight tracking limitations in the claims. This argument is persuasive with respect to independent method claims 10 and 27, but not with respect to independent system claim 1.

Although the Mansell reference teaches using the GPS tracking system disclosed therein to determine the locations of cargo and freight hauling vehicles, it does not disclose such use in the environment of a freight yard. Thus, Mansell

does not respond to the various method steps in claims 10 and 27 which require performance in a freight yard. Accordingly, we shall not sustain the standing 35 U.S.C. § 102(b) rejection of claims 10 and 27, or of claims 11 and 28 through 31 which depend therefrom, as being anticipated by Mansell.

Claim 1, on the other hand, mentions the "freight yard" only in the functional context of describing the intended use of various components of the claimed system. In other words, claim 1 does not recite the "freight yard" as a positive element of the claimed system. It is not apparent, nor have the appellants cogently explained, why the system disclosed by Mansell would not be inherently capable of use in a freight yard. Thus, Mansell meets the functional limitations in question under principles of inherency. Hence, the appellants' position that the subject matter recited in claim 1 is not anticipated by Mansell is unpersuasive.

Therefore, we shall sustain the standing 35 U.S.C. § 102(b) rejection of claim 1, and of dependent claims 2, 3 and 5 through 9 which are grouped therewith for purposes of this

appeal (see page 2 in the main brief and page 1 in the reply brief), as being anticipated by Mansell.

III. The 35 U.S.C. § 102(e) rejection based on Bickley.

Bickley discloses a GPS communications interface which is shown in Figure 1 and described at column 2, line 54, through column 4, line 9. The interface includes a direct GPS port 46 for communicating GPS pseudo range data from another differential receiver (see column 3, lines 12 through 15). Among the possible applications for the interface is the interrogatable tag system shown in Figure 3 and described at column 4, line 53, through column 5, line 30. Of this system, Bickley states that

[t]he interrogatable tag system shown in FIG. 3 can be used to provide identification, location/position data, and message transfer by radio interrogation. Applications include tracking and monitoring of ground vehicles (e.g., police, taxi, truck, tractors), aircraft, ships, airport assets, warehouse assets, dockside assets, harbor assets, and military applications such as interrogatable friend or foe (IFF) systems [column 5, lines 8 through 15].

Although the Bickley reference teaches that the GPS communications interface disclosed therein can be used to determine the locations of items such as trucks, aircraft, ships and warehouse assets which arguably constitute freight containers, it does not detail this implementation with the specificity necessary to establish that each and every element recited in claim 1 is met. In a sense, Bickley is somewhat ambiguous in this regard, and it is well settled that an anticipation rejection cannot be predicated on an ambiguous reference (In re Turlay, 304 F.2d 893, 899 134 USPQ 355, 360 (CCPA 1962)).

Accordingly, we shall not sustain the standing 35 U.S.C. § 102(e) rejection of claim 1, or of claims 2, 3 and 5 through 7 which depend therefrom, as being anticipated by Bickley.

IV. The 35 U.S.C. § 103(a) rejections.

Although the four § 103(a) rejections rest on different primary references, Rudnicki, Burns, Welles or Alesio, they

share a common thread in that the examiner is proposing to modify each of the primary references in view of either Mansell or Bickley.

Rudnicki discloses a railroad missile garrison system which includes a GPS receiver 206 on each train for generating train position information, a data management system 204 on each train for receiving, transmitting, and processing information received from various on board and external sources, a rail operation control system 262 that monitors train position, and a network control system 282 for digital communication between the trains and the rail operation control system.

Burns discloses a rail vehicle monitoring system which includes a radio 103, radio antenna 105, control computer 102 and GPS antenna/receiver 106, 107 on each train, and a base station 112 having an antenna 113, radio 114 and base control computer 116.

Welles discloses a vehicle tracking system for use with freight cars, shipping containers or the like (see column 1,

lines 11 through 14; and column 3, lines 6 through 10). The system includes mobile tracking units 10 on each vehicle 12, a GPS communications link 14, and a remote control station 18 having display devices for showing the locations of the vehicles.

Alesio discloses a vehicle theft detection system wherein each vehicle is equipped with a vehicle monitoring unit which when activated monitors a current stationary position of the vehicle and automatically transmits GPS derived position signals to a remote dispatch center upon movement of the vehicle beyond a range of movement preselected by the vehicle operator.

Conceding that each of these primary references fails to meet the error correction limitations in claims 1, 10 and/or 27, the examiner has concluded that it would have been obvious to one of ordinary skill in the art to provide each primary reference with error correction features of the sort claimed in view of either Mansell or Bickley in order to increase the accuracy of the GPS derived locations (see pages 8 through 11

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in the substitute answer).

The appellants counter that the examiner's conclusion of obviousness is unsound because the applied references lack any suggestion to increase the accuracy of the GPS location determinations in the primary references or to utilize such determinations to track freight containers in a freight yard.

The appellants' position here is persuasive with respect to the proposed combination of Alesio and either Mansell or Bickley, but not with respect to the proposed combinations of Rudnicki, Burns or Welles and either Mansell or Bickley.

More particularly, the vehicle theft detection system and method disclosed by Alesio bear little resemblance to the freight related system and method recited in independent claims 1, 10 and 27. Even if the Alesio system and method were modified in view

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of either Mansell or Bickley in the manner proposed by the examiner, the result would not meet numerous limitations in these claims.

Therefore, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1, 10 and 27, or of claims 2, 3, 5 through 7 and 28 through 31 which depend therefrom, as being unpatentable over Alesio in view of Mansell or Bickley.

On the other hand, Rudnicki, Burns and Welles all involve systems of the sort recited in claim 1 for determining locations of items (e.g., trains, freight cars, shipping containers) which reasonably constitute "freight containers." The examiner's conclusion that it would have been obvious to provide these systems with the error correction features recited in claim 1 finds ample support in the increased accuracy benefits suggested by Mansell or Bickley. Moreover, although the Rudnicki, Burns and Welles systems do not pertain a freight yard, claim 1 does not recite the freight yard as a positive element of the claimed system. Thus, the appellants' arguments with respect to these particular reference

combinations are not convincing.

Accordingly, we shall sustain the standing 35 U.S.C.

§ 103(a) rejection of claim 1 as being unpatentable over Rudnicki in view of Mansell or Bickley, the standing 35 U.S.C. § 103(a) rejection of claim 1 as being unpatentable over Burns in view of Mansell or Bickley, and the standing 35 U.S.C. § 103(a) rejection of claim 1 as being unpatentable over Welles in view of Mansell or Bickley.

Since the appellants have grouped dependent claims 2, 3 and 5 through 9 with claim 1 for purposes of this appeal (see page 2 in the main brief and page 1 in the reply brief), we also shall sustain the standing 35 U.S.C. § 103(a) rejection of claims 2, 3 and 5 through 7 as being unpatentable over Rudnicki in view of Mansell or Bickley, the standing 35 U.S.C. § 103(a) rejection of claims 2, 3 and 5 through 7 as being unpatentable over Burns in view of Mansell or Bickley, and the standing 35 U.S.C. § 103(a) rejection of claims 2, 3 and 5 through 9 as being unpatentable over Welles in view of Mansell or Bickley.

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SUMMARY

The decision of the examiner:

a) to reject claims 1 through 3, 5 through 11 and 27 through 31 under 35 U.S.C. § 102(b) as being anticipated by Mansell is affirmed with respect to claims 1 through 3 and 5 through 9, and reversed with respect to claims 10, 11 and 27 through 31;

b) to reject claims 1 through 3 and 5 through 7 under 35 U.S.C. § 102(e) as being anticipated by Bickley is reversed;

c) to reject claims 1 through 3 and 5 through 7 under 35 U.S.C. § 103(a) as being unpatentable over Rudnicki in view of Mansell or Bickley is affirmed;

d) to reject claims 1 through 3 and 5 through 7 under 35 U.S.C. § 103(a) as being unpatentable over Burns in view of Mansell or Bickley is affirmed;

e) to reject claims 1 through 3 and 5 through 9 under 35 U.S.C. § 103(a) as being unpatentable over Welles in view of Mansell or Bickley is affirmed; and

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f) to reject claims 1 through 3, 5 through 7, 10 and 27 through 31 under 35 U.S.C. § 103(a) as being unpatentable over Alesio in view of Mansell or Bickley is reversed.

AFFIRMED-IN-PART

	NEAL E. ABRAMS)	
	Administrative Patent Judge)	
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	LAWRENCE J. STAAB)	APPEALS
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